

1 What is claimed is:

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3 1. An isolated nucleic acid molecule selected from the group consisting of:

4 a) a nucleic acid molecule comprising a nucleotide sequence which is at least

5 99% identical to the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3;

6 b) a nucleic acid molecule comprising a fragment of at least 300 nucleotides of

7 the nucleotide sequence of SEQ ID NO: 1, SEQ ID NO:3;

8 c) a nucleic acid molecule which encodes a polypeptide comprising the amino

9 acid sequence of SEQ ID NO:2;

10 d) a nucleic acid molecule which encodes a fragment of a polypeptide

11 comprising the amino acid sequence of SEQ ID NO:2, wherein the fragment comprises at

12 least 15 contiguous amino acids of SEQ ID NO: 2; and

13 e) a nucleic acid molecule which encodes a naturally occurring allelic variant of

14 a polypeptide comprising the amino acid sequence of SEQ ID NO:2, wherein the nucleic

15 acid molecule hybridizes to a nucleic acid molecule comprising SEQ ID NO: 1, 3, or a

16 complement thereof, under stringent conditions.

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18 2. The isolated nucleic acid molecule of claim 1, which is selected from the

19 group consisting of:

20 a) a nucleic acid comprising the nucleotide sequence of SEQ ID NO: 1, SEQ ID

21 NO:3; and

22 b) a nucleic acid molecule which encodes a polypeptide comprising the amino

23 acid sequence of SEQ ID NO:2.

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25 3. The nucleic acid molecule of claim 1 further comprising vector nucleic acid

26 sequences.

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28 4. The nucleic acid molecule of claim 1 further comprising nucleic acid

29 sequences encoding a heterologous polypeptide.

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31 5. A host cell which contains the nucleic acid molecule of claim 1.

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33 6. The host cell of claim 5 which is a mammalian host cell.

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2 7. A non-human mammalian host cell containing the nucleic acid molecule of
3 claim 1.

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5 8. An isolated polypeptide selected from the group consisting of:
6 a) a polypeptide which is encoded by a nucleic acid molecule comprising a
7 nucleotide sequence which is at least 99% identical to a nucleic acid comprising the
8 nucleotide sequence of SEQ ID NO: 1, SEQ ID NO:3, or a complement thereof.
9 b) a naturally occurring allelic variant of a polypeptide comprising the amino
10 acid sequence of SEQ ID NO:2, wherein the polypeptide is encoded by a nucleic acid
11 molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO: 1, SEQ ID
12 NO:3, or a complement thereof under stringent conditions; and
13 c) a fragment of a polypeptide comprising the amino acid sequence of SEQ ID
14 NO:2, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2.

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16 9. The isolated polypeptide of claim 8 comprising the amino acid sequence of
17 SEQ ID NO:2.

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19 10. The polypeptide of claim 8 further comprising heterologous amino acid
20 sequences.

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22 11. An antibody which specifically or selectively binds to a polypeptide of claim
23 8.

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25 12. A method for producing a polypeptide selected from the group consisting of:
26 a) a polypeptide comprising the amino acid sequence of SEQ ID NO:2;
27 b) a polypeptide comprising a fragment of the amino acid sequence of SEQ ID
28 NO:2, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2;
29 and
30 c) a naturally occurring allelic variant of a polypeptide comprising the amino
31 acid sequence of SEQ ID NO:2, wherein the polypeptide is encoded by a nucleic acid
32 molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1, SEQ ID
33 NO:3, or a complement thereof under stringent conditions;

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comprising culturing the host cell of claim 5 under conditions in which the nucleic acid molecule is expressed.

4 13. A method for detecting the presence of a polypeptide of claim 8 in a sample,
5 comprising:

6 a) contacting the sample with a compound which selectively binds to a
7 polypeptide of claim 8; and

8 b) determining whether the compound binds to the polypeptide in the sample.

14. The method of claim 13, wherein the compound which binds to the polypeptide is an antibody.

13 15. A kit comprising a compound which selectively binds to a polypeptide of
14 claim 8 and instructions for use.

16 A method for detecting the presence of a nucleic acid molecule of claim 1 in
17 a sample, comprising the steps of:

- a) contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule; and
- b) determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample.

23 17. The method of claim 16, wherein the sample comprises mRNA molecules
24 and is contacted with a nucleic acid probe.

26 18. A kit comprising a compound which selectively hybridizes to a nucleic acid
27 molecule of claim 1 and instructions for use.

19. A method for identifying a compound which binds to a polypeptide of claim

31 a) contacting a polypeptide, or a cell expressing a polypeptide of claim 8 with a
32 test compound and

b) determining whether the polymerside binds to the test compound.

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2 20. The method of claim 19, wherein the binding of the test compound to the
3 polypeptide is detected by a method selected from the group consisting of:
4 a) detection of binding by direct detecting of test compound/polypeptide
5 binding;
6 b) detection of binding using a competition binding assay;
7 c) detection of binding using an assay for 33449-mediated signal transduction.
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9 21. A method for modulating the activity of a polypeptide of claim 8 comprising
10 contacting a polypeptide or a cell expressing a polypeptide of claim 8 with a compound
11 which binds to the polypeptide in a sufficient concentration to modulate the activity of the
12 polypeptide.

13
14 22. A method for identifying a compound which modulates the activity of a
15 polypeptide of claim 8, comprising:
16 a) contacting a polypeptide of claim 8 with a test compound; and
17 b) determining the effect of the test compound on the activity of the polypeptide
18 to thereby identify a compound which modulates the activity of the polypeptide.